

# HALLIBURTON

## ARRAY COMPENSATED RESISTIVITY

1 IN = 100 FT TVD

COMPANY		SMITH PRODUCTION CO.		COMPANY		SMITH PRODUCTION CO.	
WELL		SL 18593 #2		WELL		SL 18593 #2	
FIELD		GILLIS-ENGLISH BAYOU		FIELD		GILLIS-ENGLISH BAYOU	
PARISH		CALCASIEU		PARISH		CALCASIEU	
STATE		LOUISIANA		STATE		LOUISIANA	
Permanent Datum	GL	API No.	17019222560000	Other Services:			
Log measured from	KB	Location	Longitude: 99° 8' 34.52" W Latitude: 30° 17' 17.67" N	DSNT, SDLT			
Drilling measured from	KB						
Date	06-Feb-11	Sect.	12	Twp.	9S	Rge.	8W
Run No.	ONE	Elev. 3.0 ft					
Depth - Driller	8202.00 ft	Elev. K.B.					
Depth - Logger	8017.0 ft	D.F.					
Bottom - Logged Interval	8007.0 ft	G.L.					
Top - Logged Interval	2507.0 ft						
Casing - Driller	9.625 in						
Casing - Logger	2507.0 ft						
Bit Size	8.500 in						
Type Fluid in Hole	WATER BASED MUD						
Density	10.2 ppg	47.00	s/qt				
PH	9.90 pH	5.0	cpm				
Source of Sample	FLOWLINE						
Rm @ Meas. Temperature	0.770 ohmm	@	77.00 degF				
Rmf @ Meas. Temperature	0.64 ohmm	@	75.00 degF				
Rmc @ Meas. Temperature	0.720 ohmm	@	75.00 degF				
Source Rmf	MEASURED		MEASURED				
Rm @ BHT	0.36 ohmm	@	172.0 degF				
Time Since Circulation	10.0 hr						
Time on Bottom	06-Feb-11 12:52						
Max. Rec. Temperature	172.0 degF	@	8017.0 ft				
Equipment	Location	NEW IBERIA					
Recorded By	C. HARRELL						
Witnessed By	B. FURRH						

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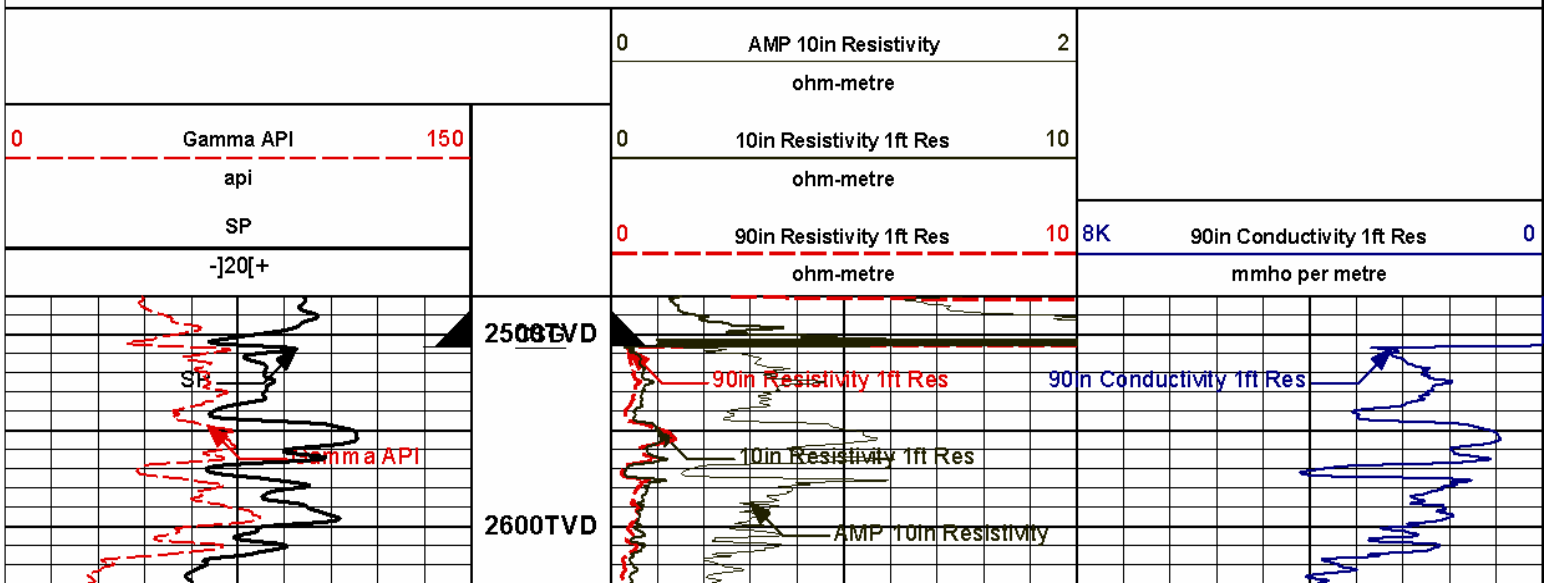
Service Ticket No.: 7945504		API Serial No.: 17019222560000		PGM Version: WL INSITE R3.2.0 (Build 7)			
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES			
Date	Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller							
Type Fluid in Hole							
Density	Viscosity						
Ph	Fluid Loss						
Source of Sample				RESISTIVITY EQUIPMENT DATA			
Rm @ Meas. Temp	@		@	Run No.	Tool Type & No.	Pad Type	Tool Pos.
Rmf @ Meas. Temp.	@		@	ONE	ACRt-310I309S	N/A	1.5 IN S.O.
Rmc @ Meas. Temp.	@		@				
Source Rmf	Rmc						
Rm @ BHT	@		@				
Rmf @ BHT	@		@				
Rmc @ BHT	@		@				
EQUIPMENT DATA							
GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE
Serial No.	10958652	Serial No.		Serial No.	325M767P	Serial No.	112589761
Model No.	GTET	Model No.		Model No.	SDLT	Model No.	DSNT
Diameter	3.625 IN	No. of Cent.		Diameter	4.5 IN	Diameter	3.625 IN
Detector Model No.	GTET	Spacing		Log Type	GAM GAM	Log Type	NEU NEU
Type	SCINT			Source Type	Cs 137	Source Type	Am241Be
Length	8 IN	ISA IY/N		Serial Nn	20786B	Serial Nn	DSN-414

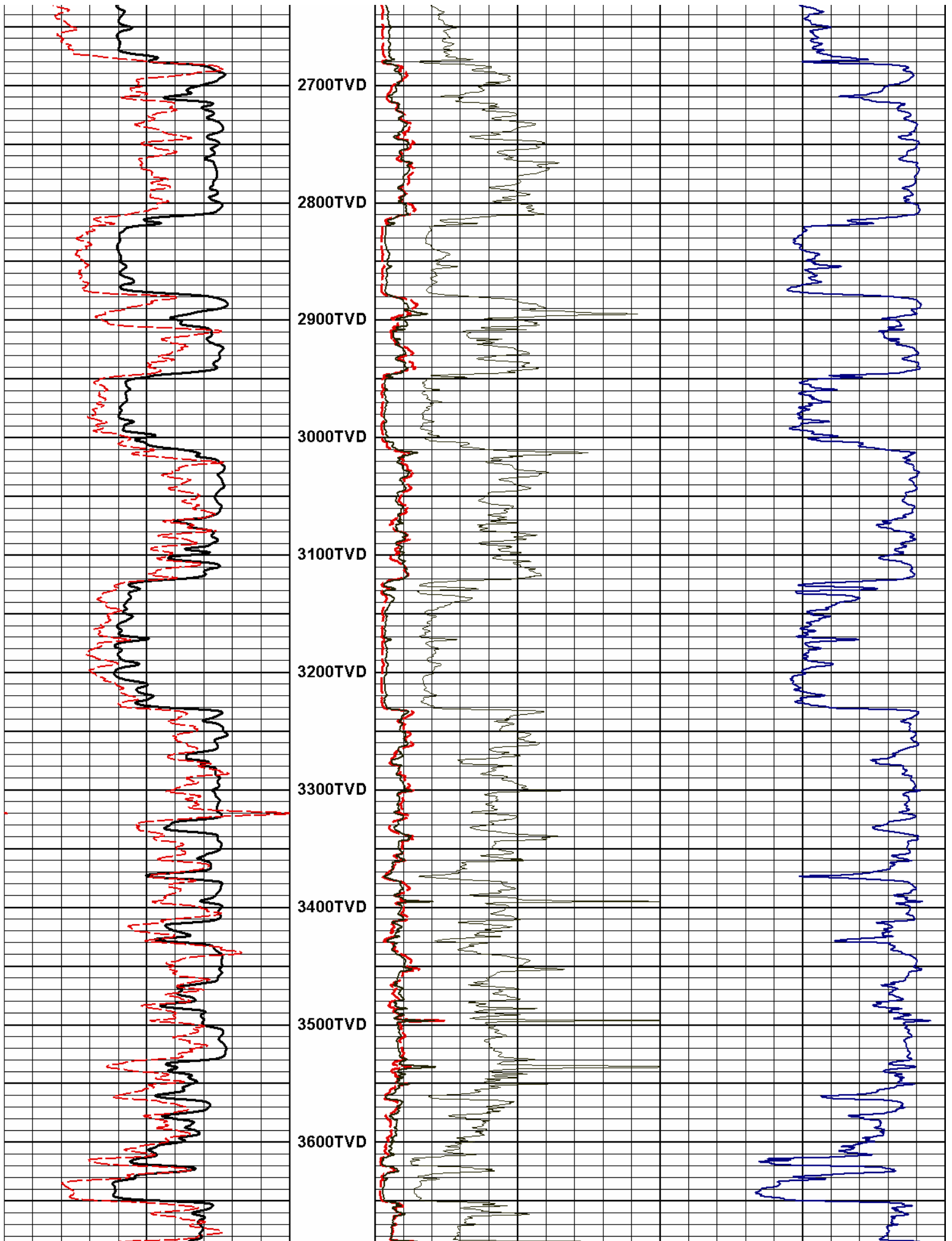
Distance to Source	N/A		FWDA [Y/N ]			Strength	1.5 Ci		Strength	15 Ci				
LOGGING DATA														
GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	CSG	REC	0	150				60%	0%	2.65 g/cc	60%	0%	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation			25.90 deg		@	6578.00 ft			KOP	@	4056.00 ft			
DIRECTIONAL DATA PROVIDED TRI CITY SERVICES														
Remarks: GTET-DSNT-SDLT-ACRT RAN IN COMBINATION														
AHV CALCULATED FOR 5.5 IN GASING														
MAXIMUM TEMPERATURES: 172 degF, 172 degF, 170 degF														
CHLORIDES: 2900 mg/L														
SERIAL NO. 242566														
RIG: CROWN #2														
CREW: T. NORA, C. THOMAS, H. HARGROVE														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES: NEW IBERIA, LA (337) 367-9261														
<p>HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.</p>														
HALLIBURTON														

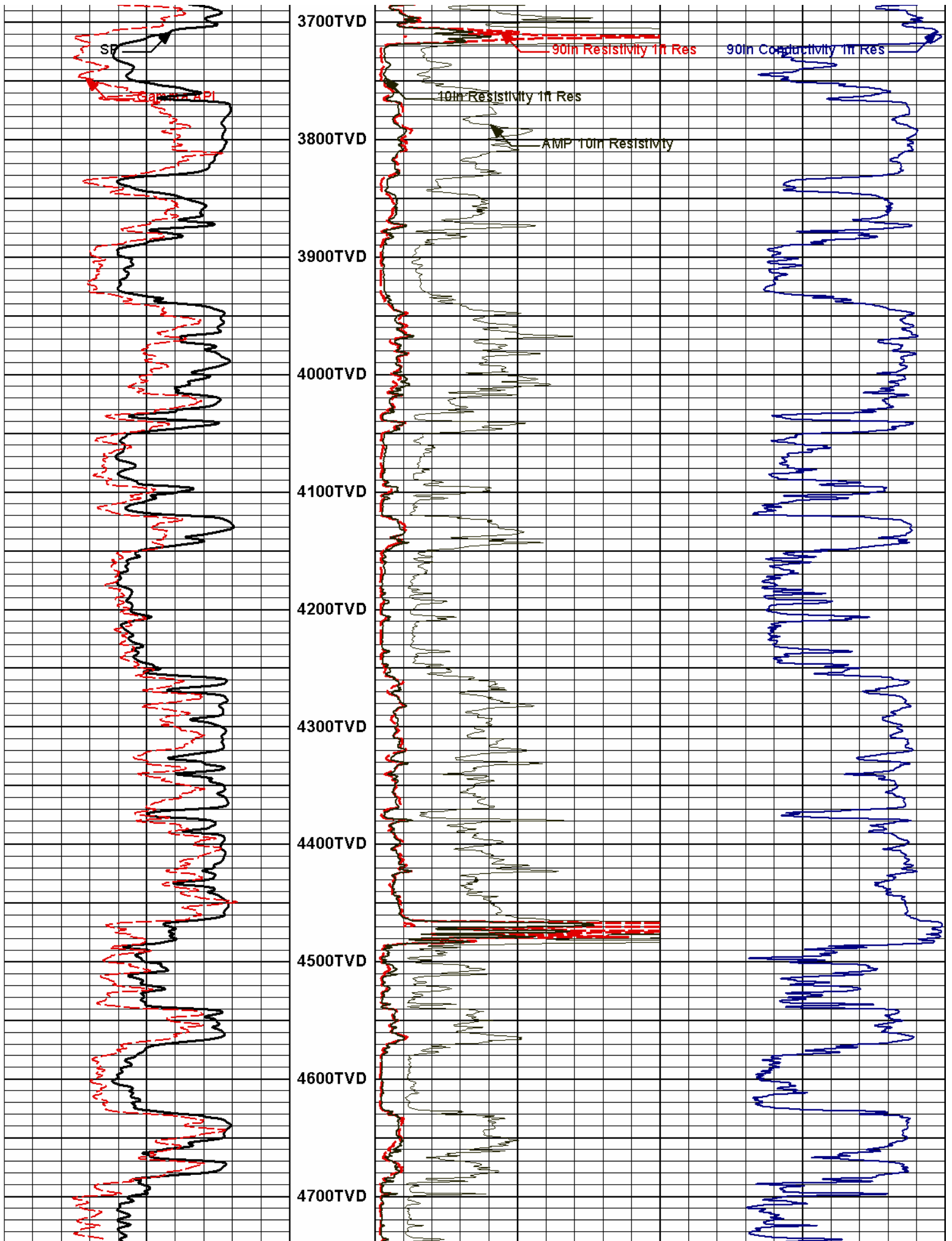
**HALLIBURTON**

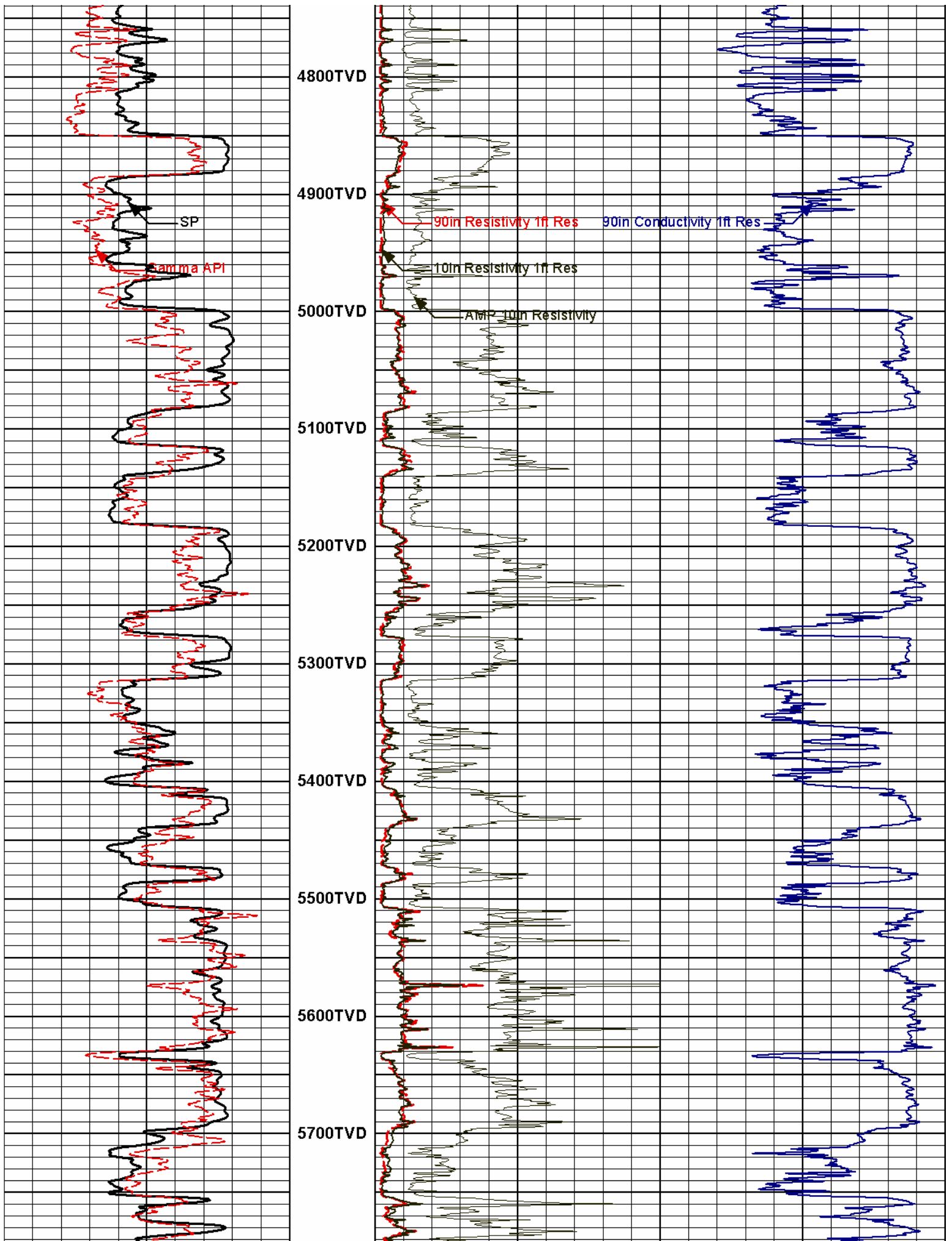
Plot Time: 06-Feb-11 15:27:34  
 Plot Range: 2480 ft to 7940 ft  
 Data: "\Well Based"\  
 Plot File: \\1IN\_TVD\CHUCK\_1IN\_ACRT\_IN\_WBM\_TVD

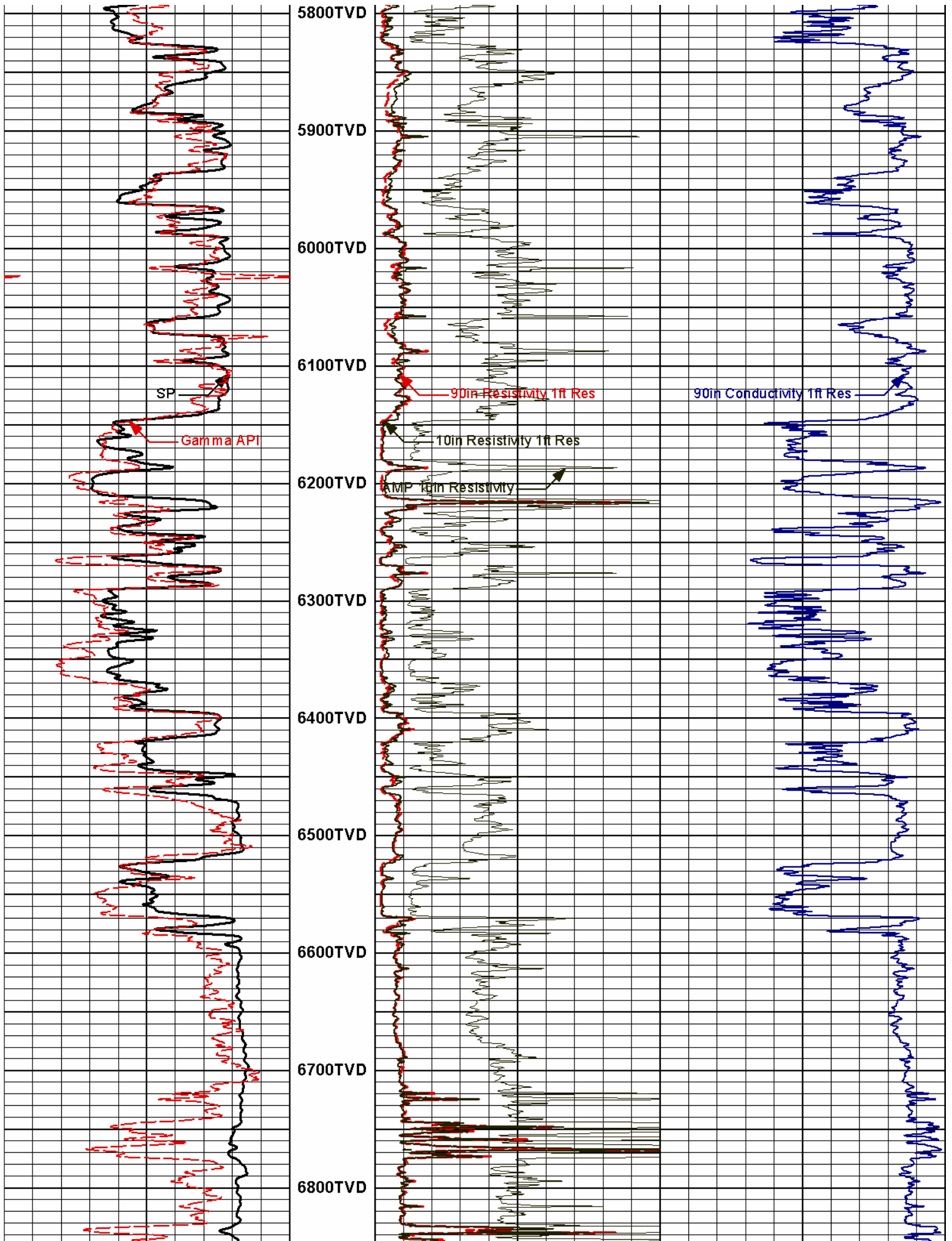
1 IN = 100 FT TRUE VERTICAL DEPTH

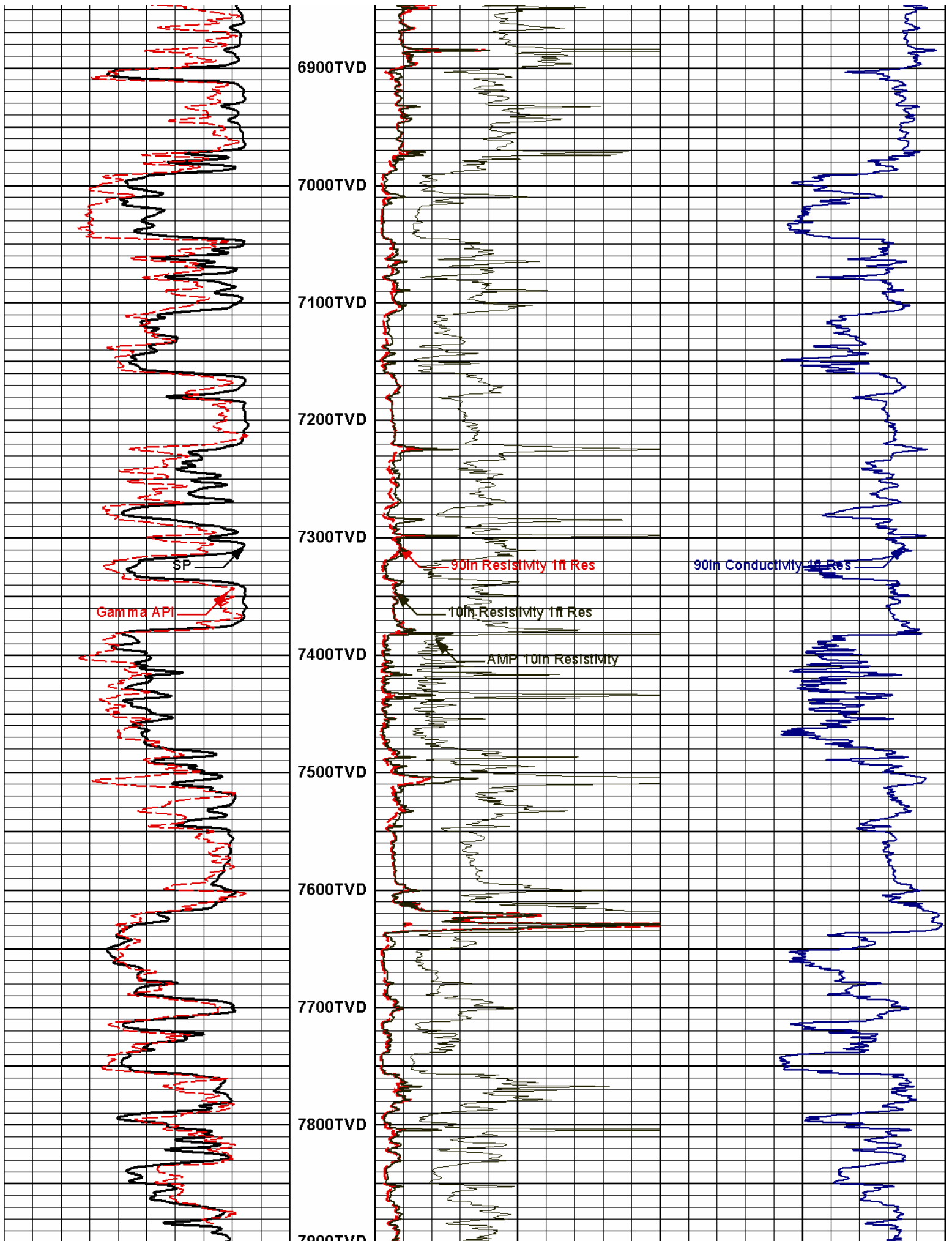












SP		0	90in Resistivity 1ft Res	10	8K	90in Conductivity 1ft Res	0
-]20[+			ohm-metre			mmho per metre	
0	Gamma API	150	0	10in Resistivity 1ft Res	10		
api			ohm-metre				
			0	AMP 10in Resistivity	2		
			ohm-metre				

**HALLIBURTON**

Plot Time: 06-Feb-11 15:27:45  
 Plot Range: 2480 ft to 7940 ft  
 Data: "Well Based"  
 Plot File: \\MIN\_TVD\CHUCK\_1IN\_ACRT\_IN\_WBM\_TVD

1 IN = 100 FT TRUE VERTICAL DEPTH

**HALLIBURTON**

**TVD SURVEY REPORT**

Hole Position Calculation Method:	Minimum Curvature	Tie in Data	Depth:	100.00	ft
Magnetic Declination:			TVD:	100.00	ft
			Inclination:	0.5	deg
			Azimuth:	174.94	deg
			N/S Departure:	0.00	ft
			E/W Departure:	0.00	ft

Measured Depth (ft)	Inclination (deg)	True Vertical Depth (ft)	Azimuth (deg)	N/S Departure (ft)	E/W Departure (ft)
100.00	0.5	100.00	174.94	0.00	0.00
200.00	0.8	199.99	159.88	-1.05	0.26
300.00	0.8	299.99	166.84	-2.30	0.64
400.00	0.8	399.98	175.81	-3.59	0.83
500.00	0.8	499.97	169.78	-4.89	1.00
600.00	0.8	599.96	155.75	-6.13	1.38
700.00	0.5	699.95	194.72	-7.15	1.54
800.00	0.3	799.95	145.69	-7.75	1.55
900.00	0.3	899.95	97.66	-7.96	1.89
1000.00	0.3	999.95	174.63	-8.21	2.13
1100.00	0.3	1099.95	231.60	-8.56	1.98
1200.00	0.3	1199.95	104.56	-8.75	2.02
1300.00	0.3	1299.95	191.53	-9.02	2.19
1400.00	0.3	1399.95	294.50	-9.14	1.94
1500.00	0.3	1499.95	169.47	-9.26	1.79
1600.00	0.3	1599.95	217.44	-9.65	1.69
1700.00	0.3	1699.95	24.41	-9.63	1.65
1800.00	0.3	1799.95	229.22	-9.57	1.58
1900.00	0.3	1899.95	259.19	-9.75	1.20
2000.00	0.5	1999.94	209.16	-10.18	0.77
2100.00	0.3	2099.94	237.13	-10.68	0.37
2200.00	0.5	2199.94	219.10	-11.13	-0.09
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2300.00	0.5	2299.94	237.07	-11.71	-0.73
2400.00	0.5	2399.93	231.03	-12.22	-1.43
2700.00	0.3	2699.93	188.94	-13.69	-2.55
2800.00	0.3	2799.93	358.88	-13.69	-2.59
2900.00	0.3	2899.92	225.78	-13.62	-2.75
3000.00	0.3	2999.92	33.70	-13.59	-2.79
3100.00	0.3	3099.92	330.62	-13.22	-2.77
3200.00	0.3	3199.92	299.53	-12.92	-3.07
3300.00	0.5	3299.92	328.45	-12.44	-3.49
3400.00	0.5	3399.92	310.37	-11.79	-4.05
3500.00	0.3	3499.91	338.29	-11.30	-4.46
3600.00	0.3	3599.91	358.21	-10.88	-4.55
3700.00	0.3	3699.91	11.13	-10.45	-4.51
3800.00	0.3	3799.91	332.05	-10.04	-4.57
3900.00	0.3	3899.91	342.97	-9.64	-4.74
3959.00	0.3	3958.91	4.48	-9.39	-4.77
4065.00	0.5	4064.91	52.90	-8.88	-4.38
4158.00	2.1	4157.88	52.30	-7.59	-2.71
4251.00	4.4	4250.73	54.30	-4.47	1.54
4345.00	8.1	4344.15	60.30	0.92	10.22
4438.00	9.7	4436.03	62.70	7.76	22.88
4530.00	11.1	4526.52	60.30	15.70	37.46
4624.00	11.8	4618.65	62.40	24.64	53.83
4717.00	13.7	4709.35	60.30	34.50	71.83
4810.00	13.9	4799.66	62.40	45.13	91.30
4904.00	14.3	4890.83	59.40	56.27	111.29
4997.00	15.5	4980.70	59.20	68.48	131.85
5090.00	17.4	5069.89	59.70	81.86	154.54
5183.00	18.1	5158.47	57.80	96.58	178.77
5276.00	18.5	5246.76	57.10	112.29	203.38
5370.00	20.1	5335.48	59.40	128.61	229.81
5463.00	22.0	5422.27	60.40	145.35	258.71
5553.00	23.8	5505.17	59.90	162.79	289.08
5646.00	23.9	5590.23	60.80	181.39	321.76
5739.00	23.8	5675.29	61.00	199.68	354.62
5833.00	25.0	5760.89	60.40	218.68	388.48
5926.00	24.6	5845.32	59.50	238.22	422.24
6019.00	24.5	5929.91	59.40	257.86	455.52
6112.00	24.5	6014.54	60.30	277.23	488.87
6206.00	24.5	6100.07	61.70	296.12	522.96
6298.00	25.0	6183.62	63.20	313.93	557.11
6391.00	25.3	6267.81	60.30	332.64	591.91
6484.00	25.7	6351.75	60.30	352.48	626.69
6578.00	25.9	6436.38	59.40	373.03	662.07
6670.00	24.5	6519.62	60.80	392.56	696.01
6764.00	24.5	6605.16	60.10	411.79	729.92
6857.00	24.5	6689.79	60.80	430.81	763.47
6950.00	24.1	6774.55	59.40	449.88	796.65
7044.00	24.1	6860.36	62.50	468.51	830.19
7137.00	23.9	6945.32	60.40	486.58	863.42
7230.00	25.2	7029.91	60.60	505.61	897.05
7322.00	25.3	7113.12	60.60	524.87	931.24
7417.00	24.8	7199.18	58.70	545.19	965.95
7510.00	24.5	7283.71	61.00	564.67	999.48
7603.00	24.3	7368.40	60.60	583.42	1033.02
7695.00	25.2	7451.95	61.00	602.20	1066.64
7787.00	25.3	7535.16	63.00	620.62	1101.29
7787.00	25.3	7535.16	61.30	620.62	1101.29
7833.00	25.3	7576.76	60.77	629.88	1118.61
7864.00	25.3	7604.79	61.30	636.29	1130.19
7895.00	25.3	7632.83	59.77	642.80	1141.71
7958.00	25.3	7689.81	60.77	656.12	1165.05

8020.00	25.0	7745.94	59.77	669.18	1187.91
8082.00	25.0	7802.13	60.77	682.17	1210.66
8144.00	24.8	7858.38	61.77	694.71	1233.53
8202.00	24.8	7911.05	61.77	706.19	1254.92

**Horizontal displacement is relative to the well head.  
Horizontal displacement (closure) at 8,202.00 ft is 1,439.98 ft along 60.63 deg (Grid).**

Data: SL\_18593\_2

Date: 06-Feb-11 15:25:11

COMPANY	<b>SMITH PRODUCTION CO.</b>		
WELL	<b>SL 18593 #2</b>		
FIELD	<b>GILLIS-ENGLISH BAYOU</b>		
PARISH	<b>CALCASIEU</b>	STATE	<b>LOUISIANA</b>
<b>HALLIBURTON</b>		<b>ARRAY COMPENSATED RESISITIVY 1 IN = 100 FT TVD</b>	